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VERTICAL MARKET ANALYSIS

RETAIL DISTRIBUTION 1993-1998

U.S. Information Services
Market Analysis Program

May 7, 1993

Dear Colleague:

Attached is the Information Services Market Analysis Program's latest industry sector forecast update for the *Retail Distribution Market*. It provides a current assessment of the events and issues driving the education marketplace, and offers INPUT's forecast of the market size for information services for the period 1993-1998.

This report should be filed with INPUT's other *U.S. Information Services Market Analysis Program* reports, behind the tab marked *Retail Distribution.* Your INPUT program binders, together with the delivery mode reports, provide a total assessment of the United States market for information services.

Market Analysis Program industry sector reports are prepared annually, and may be in one of two forms. The expanded report will contain a detailed industry analysis and supporting forecast data. It will typically be 40-50 pages in length. The forecast update will be a short report, providing a new forecast and summary data to support forecast assumptions. It will generally be 15-20 pages in length. Normally, full reports will be produced every other year, with summary reports prepared in the intervening years. The intent of this new format is to recognize the value of our clients' time, and provide concise statements of industry activity, supported by rigorous business, technical and competitive analysis, and a five-year industry forecast. I believe that you will find these new report formats to be very informative and much more readable than other, longer documents.

I am certain that you will find the *Retail Distribution* report to be both informative and useful, and welcome any comments that you have on this document, or any of INPUT's publications.

Sincerely,

Bob Goodwin

Robert L. Goodwin
Manager
Information Services Market Analysis Program

Enc.

APRIL 1993

RETAIL DISTRIBUTION

INFORMATION SERVICES OPPORTUNITIES & TRENDS

1993-1998 FORECAST UPDATE

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Information Services Market Analysis Program
(MAP)

Retail Distribution

Information Services Opportunities & Trends 1993-1998 Forecast Update

Table of Contents

Exhibits

Introduction

A
Purpose

The purpose of this forecast report is to identify key market changes for information services in the retail distribution industry, and to provide the 1993 INPUT forecast for this market sector.

Sector Definition - the retail distribution sector, as defined by INPUT, includes:

- Merchandise establishments that have dominated the news in retail business recently, particularly in their innovative uses of information services to expand sales. Their continuing growth and changes in operation create mounting needs for advancements in the use of information systems.

- Food stores that have been changing in business and information services. One of the current business moves impacting the use of information systems is the incorporation of a food store unit in the super stores built by large retailers.

- Food and beverage establishments that have been upgrading their information systems to improve the accuracy of customer bills, and to gather more current information on the use of supplies.

- Automotive dealers, stores, and gas stations where turnkey systems and software products are popular. Automotive dealers' sales activities take place by using new card technology, EDI transactions, and marketing data bases to locate possible purchasers of more expensive cars.

Key Issues - market issues influencing information services include the following:

- The upturn in retail sales that occurred in the last quarter of 1992, which made heavy use of new information technology.

- The success of "giant" or "power" retailers and their pressures on suppliers.
- The changes in use of warehouse facilities that are driven by power retailers' needs and the use of technology.
- The increasing use of electronic commerce by power retailers, grocery stores, automotive dealers, and other areas of the retail market.
- The competitive factors that can influence the use of information services in the retail distribution market.

Other technological issues considered are network services, client/server technology, electronic imaging, and the use of SI services.

B
Organization

In addition to this introductory chapter, the report contains analyses of the information services market and competitive environment as described below:

- Chapter II, "Trends, Events and Issues," discusses changes, market issues and activities, and competitive factors in the retail distribution sector that can impact the current and future use of information services.
- Chapter III, "Information Services Market Forecast," presents an analysis of the U.S. retail distribution market's expenditures for information services by delivery mode and submode.
- Appendix A, which contains the forecast data base, presents a detailed forecast by information services delivery mode and submode for the retail distribution vertical market. A reconciliation to the previous forecast is also provided with a list of related reports.

C
Methodology

Much of the data on which this report is based was gathered during 1992 and early 1993 as part of INPUT's ongoing market analysis program. Trends, market sizes, and growth rates are based upon INPUT research and in-depth interviews with users in the retail distribution industry and its IS vendors. INPUT maintains ongoing relationships with, and a data base of, all users and vendors interviewed. Interviewees for the research portion of this report were selected from this data base of contacts.

In addition, extensive use was made of INPUT's corporate library located in Mountain View, California. The resources in this library include on-line periodical data bases, subscriptions to a broad range of computer and general business periodicals, continually updated files on over 3,000 information services vendors, and the most up-to-date U.S. Department of Commerce publications on industry statistics.

It must be noted that vendors may be unwilling to provide detailed revenue information by delivery mode or industry. Also, vendors often use different categories of industries and industry segments, or view their services as falling into different delivery modes from those used by INPUT. Thus, INPUT must estimate revenue for these categories on a best-effort basis. For this reason, the delivery mode and individual segment forecasts should be viewed as indicators of general patterns and trends rather than specific, detailed estimates for individual years.

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Trends, Events, and Issues

A
Retail Business Trends, Events, and Issues

The unfavorable environment in retail sales and earnings that began in 1989 and continued through 1991 showed signs of abating by the end of 1992.

- Gains in store sales of about 0.4% in November and 0.6% in December of 1992 made the last quarter and year successful for retail distribution, particularly for merchandise establishments. Store sales continued at a rate of about 0.4% in January, 1993.

- There were also sales increases in other areas of retail distribution in 1992, including restaurant, retail food, eating and drinking, and auto dealer establishments.

- Retail sales were not up substantially in 1992. According to *Business Week*, the overall gain for the year was slightly above 2%, and the gain for 1993 will probably be only about 0.5%. However, these figures are much better than the fall in retail sales of 0.6% in 1991.

Since the increase in business appears fragile, a major current issue for retail business establishments is finding the means to participate in or lead any upturns in sales that occur. A number of stores are attempting to do this by providing low prices and high service for a limited set of items (such as Home Depot and The Gap have done). The current environment is different from the period of high growth in the mid 1980s.

- The overbuilding in retail facilities that took place in the 1980s led to the failure and consolidation in the industry that has taken place during the last few years. Store closings resulted in the loss of over 600,000 jobs between mid-1990 and the end of 1992.

- During the present decade, consumers have also felt more pressure on their disposable income, and are more price conscious than during the 1980s.

In addition to overcapacity pressures, banks and factors are reluctant to increase credit arrangements to help meet difficulties. In this environment, retailers must concentrate on lowering their cost of operations and attract consumers by offering reasonable value at low prices. This could be achieved by focusing on a narrower range of goods.

- This environment has favored the rapid growth of retailers who can reduce the cost of distributing goods through their knowledge of the industry and the use of information technology.

- The operating and selling expenses of Wal-Mart are almost half the percentage of sales shown by comparable figures at Sears (15% versus 28% according to a McKinsey & Co. report). Sears has been forced to respond to its higher level of expenses in the market by making drastic cuts in personnel.

Wal-Mart, K Mart, Home Depot, Target Stores, Toys "R" Us, and other large establishments that are analyzing and restructuring business to lower costs and provide customers with better value and service exemplify the giant or power retailers that have become the major factor in the retail store business.

- These retailers force suppliers to provide some goods with their store pricing or bar coding. Totes adds pricing to products for some stores. Lumber dealers add bar code stickers to lumber supplied for Home Depot.

- Manufacturers will work directly with these retailers on product features in order to get goods in their stores. Rubbermaid works with Wal-Mart and Black & Decker works with Home Depot.

Other groups in the retail market, including warehouse clubs such as The Price Club and highly specialized stores dealing in a narrow range of goods, are using the combination of cost reduction and low pricing, but with less service, to capture market share.

- Older department stores such as Macy's, Sears, and Penney's are bearing down on costs and pricing. They have taken steps to lower costs through upgraded automation and/or personnel cuts to stay competitive.

- The combination of cost control, low pricing, and service has also been used in the restaurant sector by fast food chains.

The power retailers, which are leading many of the current changes, will encounter difficulties as their strategies evolve or change. K Mart did not enjoy the success of other leading retailers during the end of 1992.

- Problems in stocking goods (which may be overcome with a new system for tracking and reordering merchandise), opening super stores, incorporating grocery areas in stores, pricing versus competition, and upgrading older stores may have contributed.

- The inclusion of food capabilities will probably require more changes in information systems for K Mart because grocery inventories turn over about 6 times as fast as merchandise inventories.

The expansion into food lines, which Wal-Mart and K Mart have introduced, is an illustration of the changes in the retail industry that have to be considered in ordering and obtaining supplies. Wal-Mart has addressed these changes in the systems that link it to suppliers.

The size of the power retailers helps them to gain cooperation from suppliers to aid in the rapid exchange of information, timely supply of goods, minimization of inventory and warehouse use, and improvement of service. Size has also been important to grocery store and fast food chains in their efforts with suppliers to implement network links that can help coordinate shipments.

- Suppliers are cooperating with large retailers in the use of EDI for ordering goods, and in some cases they use data from POS units to determine when to ship goods.

- The power retailers are also active in supplying POS data to help their suppliers analyze buying patterns.

Pressure is also put on the manufacturers serving power retailers to reduce inventories and shorten the lead times necessary to put popular goods on the shelf.

- Manufacturers are strengthening or adding wholesale distribution functions, including logistics, to their capabilities to serve power retailers. Larger suppliers are more able to accomplish these goals.

- Many small manufacturers will require the services of the power retailers and/or aid from network services vendors to maintain business. LogicNet is one of the vendors that has emerged to help small suppliers respond more rapidly to the product needs of retail establishments.

As described above, the development of means of conducting business electronically between suppliers and retailers is causing a restructuring of business.

- Independent wholesalers are being bypassed by power retailers and manufacturers who are now working together on problems in the delivery of goods. Wal-Mart is now bypassing food wholesalers just as it bypassed merchandise wholesalers.

- Retailers and manufacturers are adding wholesale distribution capabilities, including systems handling and tracking the supply of goods. This puts these firms into the wholesale business and opens more opportunities for the information services businesses.

- Independent wholesalers have moved into areas of retail distribution, such as warehouse clubs open to the public, as well as import and other activities.

Electronic capabilities have also added to the ability of retail establishments to capture data about sales or use data bases of information about consumer activity. Information services firms have been active in both of these activities.

Retail distribution accounts for about 10% of the gross national product. Manufacturing, the largest vertical market, accounts for about twice as much.

- Retail distribution also accounts for a lower amount of information services expenditures than manufacturing or banking, on a relative basis.

- The retail distribution sector, however, is now gaining increasing interest from information services vendors, in comparison to other sectors, due to the rapid growth in use of new information technology, and the recent growth rate in the use of information services.

B

Technology Trends, Events, and Issues

Retail distribution has become an early user of new information technology, including new network facilities and POS registers, magnetic stripe readers, bar code technology, open computing systems, on-line data bases, and other network services.

- The use of new technology has been accompanied by a growth in the use of information services, which is higher than growth rates in manufacturing, banking, and most other vertical markets.

- Retail distribution is also having an impact on the use of information services in other markets, including manufacturing and banking, due to the impact that retail has on those sectors.

The use of new technology and information services has been stimulated by changes in business operations during the last few years. One of the major changes has been a sharp growth in network use to speed up the flow of information.

- Many suppliers to K Mart have network applications that check the supplies of its products at K Mart distribution centers. Suppliers must be sensitive to the need for these types of applications in order to hold on to customers.

- Wal-Mart has installed products from Hughes Network Systems at stores and warehouses to hasten information flow.

- The supermarket chain, Vons, has installed a network of electronic marketing systems at its stores in order to expand marketing opportunities.

Another major change has been the reduction of operational costs that power retailers have excelled at and most retailers are striving to achieve. This has been accomplished chiefly through new inventory, ordering, customer service, network applications, and upgrades or replacements of existing systems.

- Macy's reported that its return to profitability in December 1992 was achieved through improved merchandising and upgraded information systems.

- Costs were reduced and service was improved in inventory and service operations at Home Depot through the use of systems that use barcode symbols on stock.

- Costs will also drop at Smith's Food and Drug by hiring EDS to replace existing information systems equipment with client/server technology.

Many new systems are utilizing client/server technology to downsize or re-engineer business systems. In addition to the example cited above, Associated Grocers is using a client/server approach with open systems from multiple vendors to respond more rapidly to changes in customer buying patterns.

The increasing use of electronically captured data from store operations has also been a factor in retail growth. One example of this is the system utilized by suppliers to K Mart, which is mentioned above. Another is the use of POS data that automatically orders deliveries when a store's inventory runs low. The clothing manufacturer and distributor, Damon, uses this system.

A number of the technological trends affecting the retail market are related to the growth of electronic commerce.

- Electronically captured data provided by power retailers to suppliers, and data bases supplied by information services vendors such as IRI, have become important in planning for the rapid changes that occur in retail consumption.

- The growing use of credit, debit, and check guarantee cards, which facilitates purchasing and electronically capture sales data, can be used in reordering, analyzing sales, or electronic couponing. The use of debit cards in gas stations, which speeds up sales activity, is also growing.

- The use of electronic data interchange (EDI) is spurred by retail companies, such as Sears and J.C. Penney, to reduce overall costs and expedite business activity with suppliers.

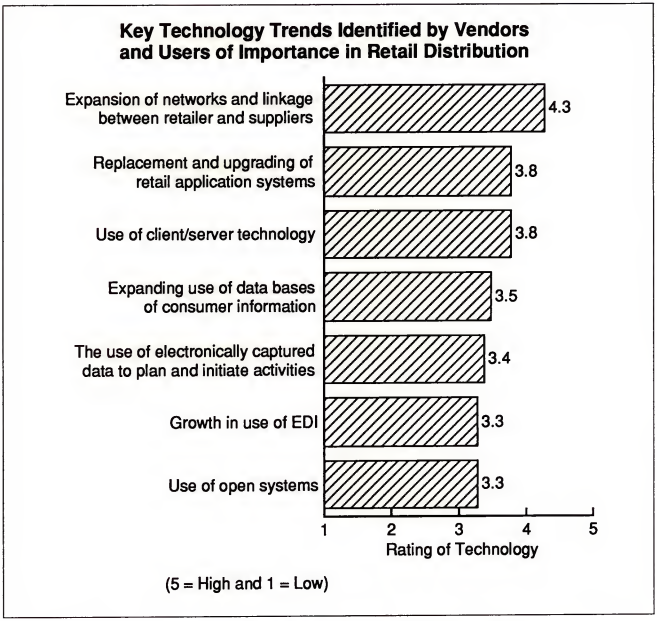
The key technology trends just reviewed are summarized in Exhibit II-1 in relation to their importance.

The enthusiasm felt by employing information services in the retail distribution sector is encouraging to many vendors; however, some vendors report that they are encountering more competition and pressure from prospects who are interested in finding less costly solutions.

- Vendors of mainframe and mini application software products are more conscious of these factors because the use of their products is growing at a much slower rate than products for workstations.

- Vendors of turnkey products also noted that they were under competitive pressures. This is partially due to the fact that they are facing competition from newer and less costly workstation solutions.

EXHIBIT II-1



The continuing growth of turnkey systems and the growth of SI is due principally to the interest in implementing solutions, which has been strong in the retail sector.

- There are turnkey vendors whose approaches are not completely current and/or use older technology, but they still manage to gain sales because they offer viable solutions.
- SI vendors, however, can use their industry and application knowledge to attract aggressive retailers with ideas that can solve the newer types of problems.

In this sector, it is important to demonstrate solutions, such as Andersen Consulting does for the grocery store marketplace with the Intelligent Store. This demonstration illustrates improvements in operations and means of collecting data to aid sales and operations.

III

Information Services Market Forecast

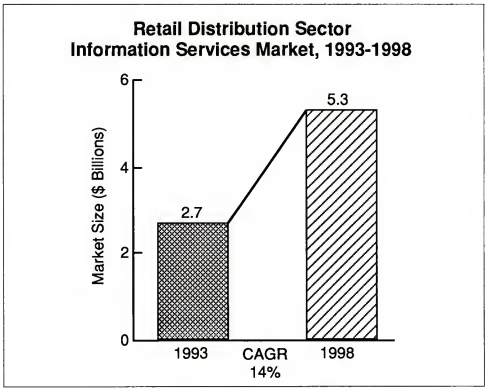
A

Total Market Forecast, 1992-1998

Information services expenditures in the U.S. retail distribution sector picked up in 1992 to a rate of 13%, 1% above the rate in 1991 and also 1% above the average growth rate in the market sectors which INPUT tracks.

- As shown in Exhibit III-1, these expenditures will grow at an even higher compound annual growth rate (CAGR) of 14% between 1993 and 1998, despite the fact that retail business will not return to the growth rates that it experienced in the mid 1980s.
- Expenditures will advance from $2.4 billion in 1992 to almost $2.7 billion in 1993 and then climb to slightly more than $5.3 billion in 1998.

EXHIBIT III-1



The reason for the spurt in growth in the retail sector's use of information services came from the realization that the improvements needed to drive business growth such as cost reduction, improvement of service and the use of information to plan supplier activities, depend on improving the application of information technology to retail business activities.

- This realization led to a 5% increase in the use of information services in 1992 versus the previous use forecast for that year.
- The forecast of expenditures for 1997 is also about 5% higher than the previous retail forecast.

Expenditures for use of information services in the retail sector are growing more rapidly than in most other sectors. There is strong growth in telecommunications and several other industry and cross industry sectors; however, growth is not expected to be as high in sectors that include manufacturing, education, business services, banking, and the federal government.

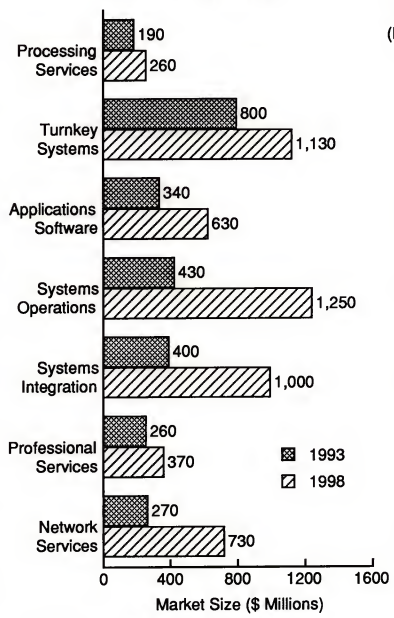
B

Forecast by Delivery Mode

The 1993-1998 forecast of user expenditures by delivery mode, in the retail distribution sector, is shown in Exhibit III-2. (Note that for the ease of graphic presentation, values in the exhibit have been rounded to the nearest $10 million. References in the text reflect the actual values shown in Appendix A.) Discussion of the individual forecasts for delivery modes follows this exhibit.

EXHIBIT III-2

Retail Distribution Sector
Information Services Market by Delivery Mode
1993-1998



Note: Values have been rounded

1. Processing Services

After falling to a rate of growth of 4% in 1992, the growth of user expenditures for processing services will recover to a rate of 5% in 1993 and rise from $177 to $186 million. Expenditures will continue grow at a compound annual growth rate of 6% for the next five years to reach $255 billion in 1998. Work conducted as part of this delivery mode includes:

- Processing of plastic card (credit, debit, check guarantee) data and payroll accounts.
- Processing of customer sales data to analyze activities for specific client's accounts. This work will probably decline as data is collected automatically, or vendors make more consumer data available to retailers through on-line data bases.
- A number of retail establishments have accounts payable, and in some cases, other accounting work handled by processing vendors. This work has been moving in-house and will be further encouraged to do so by developments in workstations, LANs and client/server applications.

2. Turnkey Systems

Turnkey systems continues to be the leading information services delivery mode in retail distribution with expenditures of $752 million is 1992, and a forecast of $804 million in 1993

- During this period, the growth rate has stayed at 7% and will continue at this rate through 1998.
- In 1998, expenditures will reach a level of $1.13 billion, which will be the second highest amount for a delivery mode serving retail distribution. Only systems operations will be higher.

Turnkey systems such as Imrex and Triad provide to retail auto dealers and to hard goods retailers, or that Unisol offers in the retail jewelry industry, give retailers the opportunity to organize their business more effectively and save costs.

Turnkey solutions to an information systems need means that one vendor takes care of hardware and software problems and may also take care of maintenance, software support and leasing. This is appealing to many retail establishments where the staff works long hours and is constantly busy planning for marketing, merchandise cycles, inventory levels, and other ongoing functions.

3. Applications Software Products

Expenditures for application software products are growing at a rate of 13% during 1993, and will increase from $302 million in 1992 to $342 million in 1993.

- The software products include industry-oriented accounting, inventory, and administrative systems, as well as merchandising and order entry capabilities designed for submarkets in retail distribution.

- The trend toward downsized solutions has resulted in a much higher rate of growth from 1992 to 1993 of workstation software products (about 18%), than for the growth of minicomputer (12%) and mainframe (6%) software products.

Although many of the software systems being sold for downsized retail solutions are based on customized spreadsheet and data base products, there are a growing number of other products being incorporated into application systems, including industry-oriented accounting systems.

- Teleprocessing monitors, tools to provide system management of open system networks, or other systems software products that are of interest to retail users, are not included in this retail industry analysis because they are not industry-specific.

- Cross-industry application products such as general accounting systems or standalone spreadsheets would not be included for the same reason.

From 1993 through 1998, growth of expenditures for application software products in the retail industry will grow at a compound annual growth rate of 13%, and will reach $630 million in 1998.

- The growth rate for the use of application software products will not increase due to the growing use of systems integration and outsourcing in retail distribution.

- The components of application software products will grow by different rates during the planning period. Mainframe software products will grow by only 4% between 1993 and 1998 and minicomputer products will grow by 10%. Workstation/PC products will grow by 19%.

4. Systems Operations

Systems operations is the fastest growing delivery mode in the retail distribution market sector.

- It will grow at a CAGR of 23% between 1993 and 1998, advancing to $1.25 billion in 1998. This is over $300 million higher than the previous forecast and makes systems operations the largest retail distribution delivery mode in 1998.

- It is growing at a rate of 21% in 1993, increasing expenditures from $350 million in 1992 to $431 million. The previous forecast was 50% lower for both years.

Systems operations services are growing rapidly because contracts for these services can have an immediate impact of reducing costs as well as addressing complex problems with highly trained specialists. Illustrations of recent outsourcing arrangements include contracts handled by:

- EDS for Smith's Food and Drug Centers, which will involve moving the client from mainframe computers to UNIX-based distributed platforms.

- ISSC for information systems used by the Zale Corp. jewelry chain, Collins Supermarkets, and Supermarkets International.

- DEC for the network operations of 500 Blockbuster Entertainment stores.

Systems operations and systems integration have the benefit of offering a single point of vendor responsibility. This is a concept that has appealed to retail industry prospects in the past (in relation to the use of turnkey systems).

5. Systems Integration

Expenditures for systems integration will grow at a rate of 21% from $330 million in 1992 to $400 million in 1993.

- This is about 5% higher than the previous forecast and can be directly attributed to the upturn in the retail market in 1992.

- Growth will continue at a CAGR of 21% through 1998 when expenditures reach $1 billion. These forecasts are in line with those made in prior reports.

Andersen Consulting offers a system called the "Smart Store" that can be integrated into the operations of medium- to large-sized grocery stores. A number of vendors, including Big 6 firms, IBM, NCR, and DEC, have also announced that they have systems integration services that meet the needs of retail establishments.

- DEC announced a contract with Toys "R" Us that will integrate NCR cash registers, DEC MicroVAX computers, and a Unisys mainframe. They also have performed other systems integration jobs in the retail market.

- NCR has announced a large contract to integrate the use of 800 NCR open systems computers in Wal-Mart stores with the Wal-Mart satellite network.

- Ernst & Young is upgrading the software products in use for Staples 72 retail outlets to systems from JDA Software Services that will handle integrated financial and inventory work on AS/400 computers.

Because retail establishments report that they are more inclined to modify software products to generate a solution than to develop new application systems from specifications, systems integration is an attractive alternative, particularly for larger, more complex establishments that cannot orient themselves to a turnkey approach.

6. Professional Services

The rate of growth for professional services in 1993 will be at 8%, as professional services increases from $238 million in 1992 to $255 million in 1993. During the 5-year forecast period, professional services will grow at a CAGR of 7%, reaching $365 million in 1998.

Compared to other industries, professional services has a slow growth rate in the retail sector due to solution-oriented approaches such as turnkey systems, systems integration, or systems operations.

7. Network Services

Network services continues to be one of the faster growing delivery modes in the retail sector over the planning period.

- Expenditures for network services will grow from $221 million in 1992 to $269 million in 1993, a rate of 22%.

- Growth between 1993 and 1998 will continue at the 22% rate, as expenditures for network services reach $734 million at the end of this 5-year forecast.

At a CAGR of 18%, growth in the EIS submode of network services will be driven by the use of credit data bases as well as data bases of demographic, consumer, competitive and economic information. The other submode, network applications, will grow at a more aggressive rate of 29% from $98 million in 1993. This growth will be driven by a significant increase in the use of EDI, electronic mail, and VANs.

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Forecast Data Base

INPUT did not produce a 1992 report for the retail distribution market sector, although a 1992 financial forecast was developed for this marketplace and used to create the *1992 U.S. Information Services Market Forecast*. To provide continuity for the hierarchy of retail distribution sector financial forecasts, the 1992 forecast entitled, *Retail Distribution Sector, User Expenditure Forecast by Delivery Mode, 1991-1997*, is included as section C of this of this Appendix. Due to the fact that this analysis is recent, the only reconciliation provided is between the two most recent forecasts—those for the periods 1991-1997 and 1992-1998.

A
Forecast Data Base

Exhibit A-1 presents the detailed 1993-1998 forecast for the retail distribution sector.

EXHIBIT A-1

Retail Distribution Sector
Market Size Forecast by Delivery Mode, 1992-1998
($ Millions)

Delivery Modes	1992 ($M)	Growth 92-93 (%)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	1998 ($M)	CAGR 93-98 (%)
Sector Total	2,370	13	2,687	3,060	3,481	4,013	4,618	5,364	15
Processing Services	177	5	186	195	209	224	239	255	7
- Transaction Processing	177	5	186	195	209	224	239	255	7
Turnkey Systems	752	7	804	858	915	992	1,061	1,130	7
Applications Software	302	13	342	387	436	493	557	630	13
- Mainframe	50	6	53	56	59	61	65	65	4
- Minicomputer	135	12	151	166	182	200	226	240	10
- Workstation/PC	117	18	138	165	195	232	266	325	19
Systems Operations	350	23	431	533	650	794	967	1,250	24
Systems Integration	330	21	400	484	576	704	852	1,000	20
Professional Services	238	7	255	275	295	316	340	365	7
Network Services	221	22	269	328	400	490	602	734	22
- Electronic Information Svcs.	145	18	171	202	238	281	332	386	18
- Network Applications	76	29	98	126	162	209	270	348	29

B
Reconciliation

Exhibit A-2 presents the detailed 1993-1998 forecast reconciliation for the retail distribution sector.

EXHIBIT A-2

Retail Distribution Sector
1993 MAP Data Base Reconciliation
($ Millions)

Delivery Modes	1992 Market				1997 Market				92-97 CAGR per data 92 Rpt (%)	92-97 CAGR per data 93 Rpt (%)
	1992 Report (Fcst) ($M)	1993 Report (Actual) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)	1992 Report (Fcst) ($M)	1993 Report (Fcst) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)		
Total	2,372	2,370	-2	-0	4,618	4,618	0	0	14	14
Processing Services	177	177	0	0	239	239	0	0	6	6
Turnkey Systems	754	752	-2	-0	1,061	1,061	0	0	7	7
Applications Software	302	302	0	0	557	557	0	0	13	13
Systems Operations	350	350	0	0	967	967	0	0	23	23
Systems Integration	330	330	0	0	852	852	0	0	21	21
Professional Services	238	238	0	0	340	340	0	0	7	7
Network Services	221	221	0	0	602	602	0	0	22	22

There is only one small differences between the prior forecast of the 1992 market and the present forecast—a variation of $2 million in the turnkey systems estimate for the 1992 market.

The forecasts for the referenced years 1992 and 1997 are almost identical because the 1992-1997 forecast was completed in December of 1992, just two months prior to the creation of the recent forecast. As a result, the analysis that yielded the 1992-1997 values is current and valid, and for purposes of this report, those values have been extended through 1993 at the compound annual rate shown in the exhibits.

C

1992 Retail Distribution Sector Forecast

Exhibit A-3 presents the detailed 1991-1997 forecast for the retail distribution sector. It provides the basis for the 1992 and 1997 numbers used in the forecast reconciliation in section B of this appendix.

EXHIBIT A-3

Retail Distribution Sector
Market Size Forecast by Delivery Mode, 1991-1997
($ Millions)

Delivery Modes	1991 ($M)	Growth 91-92 (%)	1992 ($M)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	CAGR 92-97 (%)
Sector Total	2,113	12	2,372	2,687	3,060	3,481	4,013	4,618	14
Processing Services	170	4	177	186	195	209	224	239	6
- Transaction Processing	170	4	177	186	195	209	224	239	6
Turnkey Systems	707	7	754	804	858	915	992	1061	7
Applications Software	270	12	302	342	387	436	493	557	13
- Mainframe	47	6	50	53	56	59	61	65	5
- Minicomputer	123	10	135	151	166	182	200	226	11
- Workstation/PC	100	17	117	138	165	195	232	266	18
Systems Operations	289	12	350	431	533	650	794	967	23
Systems Integration	273	21	330	400	484	576	704	852	21
Professional Services	220	8	238	255	275	295	316	340	7
Network Services	184	20	221	269	328	400	490	602	
- Electronic Information Svcs	124	17	145	171	202	238	281	332	18
- Network Applications	60	27	76	98	126	162	209	270	29

D
Related Reports

INPUT produces reports related to this Retail Distribution Sector Report in three additional market sectors:

- Wholesale distribution
- Business services
- Banking and finance

Reports are produced in 15 market sectors and 7 cross-industry sectors each year. A set of reports on these market and cross-industry sectors provides a complete overview of the U.S. information services industry.

E
Glossary

Companies in the retail distribution sector that are mentioned in this report are listed below:

- Associated Grocers
- Black & Decker
- Blockbuster Entertainment
- Collins Supermarkets
- Damon
- Home Depot
- J.C. Penney
- K Mart
- Macy's
- Rubbermaid
- Sears
- Smith's Food and Drug Centers
- Staples 72
- Supermarkets Int'l
- Target
- The Gap
- The Price Club
- Totes
- Toys "R" Us
- Vons
- Wal-Mart
- Zale Corp.

Information services vendors mentioned in this report that work for companies in the retail distribution sector are listed below:

- Andersen Consulting
- Digital Equipment
- EDS
- Ernst & Young
- IBM
- Imrex
- ISSC
- LogicNet
- JDA Software Services
- McKinsey & Company, Inc.
- NCR
- Triad
- Unisol
- Unisys

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